

Changes between 2003, 2004, and 2005 Data Files:  
American Time Use Survey (ATUS)

July 2006

## Changes between 2003 and 2004 ATUS Data Files

Changes to survey design, sampling, weighting, variable definitions, imputation, and other methodology can have serious implications for interpretation of results. The purpose of this document is to detail any such changes made between the 2003, 2004, and 2005 data files.

### 1. Sample Reduction

**2004:** Beginning with sample introduced in December 2003, the monthly sample was reduced from its 2003 level by 35 percent. Because of this, there were fewer completed interviews: there were 13,973 in 2004 compared to 20,720 in 2003. Since the sample reduction was introduced in December 2003, the first few months in 2004 have a greater number of completed interviews than later months.

**2005:** There was no sample reduction between 2004 and 2005, but 2004 had a greater number of completed interviews in the first few months of 2004 than in 2005 because of the sample reduction introduced in December 2003. The 2005 completed interviews are more evenly distributed across months.

More information about the sample reduction can be found in the User's Guide (<http://www.bls.gov/tus/atususersguide.pdf>).

### 2. Questionnaire Changes

**2004:** Minor changes to survey questions were introduced in ATUS in October 2003. More detailed secondary childcare questions were asked, involving questions about own household children, own non-household children, and non-own household children. Also, a new question about eating was introduced. Respondents who did not report about eating on their diary day are asked, "Did you do any eating or drinking yesterday as your main activity?"

More information regarding survey questions can be found in the Questionnaire (<http://www.bls.gov/tus/tuquestionnaire.pdf>).

### 3. Weighting Changes

**2004:** The method used to weight the 2004 data is different from the one used to weight the 2003 data. In 2003, the ATUS weights added up to the number of person-days in the month (or the number of days in the month times the total population) only for the population as a whole. In 2004, the method was changed so that ATUS weights add up to the number of person-days for selected subpopulations as well as for the general population.

**2005:** The method used to weight the 2005 data is slightly different from the one used to weight the 2004 data. In 2004, ATUS weights added up to the number of person-days in the month for the selected subpopulations and for the population as a whole. Weighted totals also corresponded to the number of weekdays, Saturdays, and Sundays in each month. In 2005, ATUS weights added up to the number of person-days in the quarter rather than the month for these groups, and weighted totals for the quarter correspond to the number of weekdays and weekend days rather than Saturdays and Sundays separately. Even though these methods differ, the weights are comparable for 2004 and 2005 and do not result in substantially different estimates.

More information regarding weighting can be found in the User's Guide (<http://www.bls.gov/tus/atususersguide.pdf>).

#### 4. Public Use ATUS Files

Public use ATUS files are released every year. The following table lists the availability of files by year.

	2003	2004	2005
<b>Basic ATUS data files</b>			
Respondent file	x	x	x
Roster file	x	x	x
Activity file	x	x	x
Who file	x	x	x
ATUS-CPS file	x	x	x
Activity Summary file	x	x	x
<b>Additional ATUS data files</b>			
Case History file	x	x	x
Call History file		x	x
Trips file			x
Replicate Weights file	x	x	x

#### 5. ATUS Coding Lexicon Changes

**2004:** There are minor differences between the 2003 and 2004 Coding Lexicons. Some activity codes were added and others deleted.

**2005:** The first-tier activity code for “Traveling” was changed from TUTIER1CODE = 17 to TUTIER1CODE = 18. There were also some minor differences between 2004 and 2005 Coding Lexicons.

For more information about lexicon changes and to view a crosswalk between the lexicons, see <http://www.bls.gov/tus/lexiconchanges.pdf>.

#### 6. Linking ATUS to CPS

**2003:** Linking directions are available in the 2003 ATUS-CPS data dictionary (<http://www.bls.gov/tus/atuscpscodebook.pdf>).

**2004:** Because of May 2004 changes to the CPS public use file format, the method used to link ATUS files to CPS files is different for those cases whose final CPS interview occurred after May 2004. For additional details, see the 2004 ATUS-CPS data dictionary (<http://www.bls.gov/tus/atuscpscodebk04.pdf>).

**2005:** Linking directions are available in the 2005 ATUS-CPS data dictionary (<http://www.bls.gov/tus/atuscpscodebk05.pdf>).

## 7. Variable changes

Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
<b>Respondent file</b>				
TRNUMHOU	Number of people living in respondent's household	Not on file	Not on file	On file
TRTCC	Total time spent during diary day providing secondary childcare for household and own non-household children under 13 <b>2003 and 2004:</b> TRTCC = sum of all TRTCC_LN for all of the respondent's activities. <b>TRTCC is slightly different due to changes in TRTCC_LN.</b>	On file	Changed	On file
TRTCCTOT	Total time spent during diary day providing secondary childcare for all children under 13 <b>2003 and 2004:</b> TRTCCTOT = sum of max (TRTCC_LN, TRTCOC_LN) for all of the respondent's activities. <b>TRTCCTOT is slightly different due to changes in TRTCC_LN and TRTCOC_LN.</b>	On file	Changed	On file
TRTCOC	Total time spent during diary day providing secondary childcare for non-own non-household children under 13 <b>2003 and 2004:</b> TRTCOC = sum of all TRTCOC_LN for all of the respondent's activities. <b>TRTCOC is slightly different due to changes in TRTCOC_LN.</b>	On file	Changed	On file
TRTFAMILY	Total amount of time spent with family members <b>2003:</b> excludes own non-household children <b>2004:</b> includes own non-household children	On file	Changed	On file
TRTHH	Total time spent during diary day providing secondary childcare for household children under 13	Not on file	On file	On file
TRTNOHH	Total time spent during diary day providing secondary childcare for non-own household children under 13	Not on file	On file	On file
TRTO	Total time spent during diary day providing secondary childcare for own children under 13	Not on file	On file	On file
TRTOHH	Total time spent during diary day providing secondary childcare for own household children under 13	Not on file	On file	Changed
TRTONHH	Total time spent during diary day providing secondary childcare for own non-household children under 13	Not on file	On file	On file
TUBNCHWGT	ATUS Benchmark weight	On file	Not on file	Not on file
TUCC5_CK	Reason respondent did not report secondary childcare activities for own household children	Not on file	Not on file	On file
TUCC5B_CK	Reason respondent did not report secondary childcare activities for non-own household children	Not on file	Not on file	On file
TXTCCTOT	TRTCCTOT_LN and TRTCCTOT: allocation flag	Not on file	On file	On file
TXTHH	TRTHH_LN and TRTHH: allocation flag	Not on file	On file	On file
TXTNOHH	TRTNOHH_LN and TRTNOHH: allocation flag	Not on file	On file	On file
TXTO	TRTO_LN and TRTO: allocation flag	Not on file	On file	On file
TXTOHH	TRTOHH_LN and TRTOHH: allocation flag	Not on file	On file	On file
TXTONHH	TRTONHH_LN and TRTONHH: allocation flag	Not on file	On file	On file

Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
<b>Roster file</b>				
TEAGE	Age <b>2003 and 2004:</b> topcode (maximum value) of 80 <b>2005:</b> topcode (maximum value) of 85	On file	On file	Changed
TURRP	Relationship to respondent (unedited version of TERRP)	On file	On file	Not on file
<b>Activity file</b>				
TEWHERE	Where were you during the activity? <b>2004:</b> Three additional valid values for TEWHERE were added in October 2004	On file valid values added midyear	Changed	On file
TR_03CC57	Was at least one of your household or own non-household children under 13 in your care during this activity? <b>2004:</b> replaced by TUCC5, TUCC5B, and TUCC7	On file	Not on file	Not on file
TRTCC_LN	Total time spent during activity providing secondary childcare for household and own non-household children under 13 <b>2003:</b> If an activity has TR_03CC57 =1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, or 170301, then TRTCC_LN = TUACTION24. If the information is incomplete, TRTCC_LN is imputed; imputations are based on the amount of time the respondent spent with household or own non-household children. <b>2004 and 2005:</b> TRTCC_LN = max (TRTOHH_LN, TRTNOHH_LN, TRTONHH_LN) <b>TRTCC_LN is slightly different due to small conceptual differences between the 2003 and 2004 methods.</b>	On file	Changed	On file
TRTCTOT_LN	Total time spent during activity providing secondary childcare for all children under 13	Not on file	On file	On file

Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
TRTCOC_LN	<p><b>2003:</b> If an activity has TUCC8=1 and the activity code ≠ 0101xx, 0401xx, 0402xx, 0403xx, or 170401, then TRTCOC_LN = TUACTIONDUR24. If the information is incomplete (TUCC8 is 0 for all activities or is -2 or -3 for any activity), TRTCOC_LN is imputed; imputations are based on the amount of time the respondent spent with non-own non-household children.</p> <p><b>2004:</b> If an activity has TUCC8=1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, 0401xx, 0402xx, 0403xx, 170301, or 170401, then TRTCOC_LN = TUACTIONDUR24. If the information is incomplete (TUCC8 is 0 for all activities or is -2 or -3 for any activity), TRTCOC_LN is imputed based on the amount of time the respondent spent with non-own non-household children. <b>TRTCOC_LN is slightly different in 2003 and 2004 due to small conceptual differences.</b></p> <p><b>2005:</b> If an activity has TUCC8=1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, 0401xx, 0402xx, 0403xx, 180301, 180302, 180303, 180401, 180402, or 180403, then TRTCOC_LN = TUACTIONDUR24. If the information is incomplete (TUCC8 is 0 for all activities or is -2 or -3 for any activity), TRTCOC_LN is imputed based on the amount of time the respondent spent with non-own non-household children. <b>The 2005 changes reflect changes to the Coding Lexicon and not to conceptual changes in the definition of secondary childcare.</b></p>	On file	Changed	Changed
TRTHH_LN	Total time spent during activity providing secondary childcare for household children under 13	Not on file	On file	On file
TRTNOHH_LN	Total time spent during activity providing secondary childcare for non-own household children under 13	Not on file	On file	Changed
TRTO_LN	Total time spent during activity providing secondary childcare for own children under 13	Not on file	On file	On file
TRTOHH_LN	<p>Total time spent during activity providing secondary childcare for own household children under 13</p> <p><b>2004:</b> If an activity has TUCC5=1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, or 170301, then TRTOHH_LN = TUACTIONDUR24. If the information is incomplete (TUCC5 is 0 for all activities or is -2 or -3 for any activity), TRTOHH_LN is imputed; imputations are based on the amount of time the respondent spent with own household children under 13.</p> <p><b>2005:</b> If an activity has TUCC5=1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, 180301, 180302, or 180303, then TRTOHH_LN = TUACTIONDUR24. If the information is incomplete (TUCC5 is 0 for all activities or is -2 or -3 for any activity), TRTOHH_LN is imputed; imputations are based on the amount of time the respondent spent with own household children under 13. <b>The 2005 changes reflect changes to the Coding Lexicon and not to conceptual changes in the definition of secondary childcare.</b></p>	Not on file	On file	Changed

Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
TRTONHH_LN	<p>Total time spent during activity providing secondary childcare for own non-household children under 13</p> <p><b>2004:</b> If an activity has TUCC7=1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, 0401xx, 0402xx, 0403xx, 170301, or 170401, then TRTCOC_LN = TUACTION24. If the information is incomplete (TUCC7 is 0 for all activities or is -2 or -3 for any activity), TRTONHH_LN is imputed; imputations are based on the amount of time the respondent spent with non-own non-household children.</p> <p><b>2005:</b> If an activity has TUCC7=1 and the activity code ≠ 0101xx, 0301xx, 0302xx, 0303xx, 0401xx, 0402xx, 0403xx, 180301, 180302, 180303, 180401, 180402, or 180403, then TRTONHH_LN = TUACTION24. If the information is incomplete (TUCC7 is 0 for all activities or is -2 or -3 for any activity), TRTONHH_LN is imputed; imputations are based on the amount of time the respondent spent with own non-household children under 13. <b>The 2005 changes reflect changes to the Coding Lexicon and not to conceptual changes in the definition of secondary childcare.</b></p>	Not on file	On file	Changed
TUCC5	<p>Was at least one of your own household children under 13 in your care during this activity?</p> <p><b>2004:</b> replaced TR_03CC57</p>	Not on file	On file	On file
TUCC5B	<p>Was at least one of your non-own household children under 13 in your care during this activity?</p> <p><b>2004:</b> replaced TR_03CC57</p>	Not on file	On file	On file
TUCC7	<p>Was at least one of your own non-household children under 13 in your care during this activity?</p> <p><b>2004:</b> replaced TR_03CC57</p>	Not on file	On file	On file
TUIO1MFG	<p>Is this business or organization mainly manufacturing, retail trade, wholesale trade, or something else?</p> <p><b>2003 and 2004:</b> defined only for respondents whose industry information was updated in the ATUS interview</p> <p><b>2005:</b> defined for respondents whose industry information was updated in the ATUS interview; populated with CPS values of PUIO1MFG for respondents whose industry information was not updated in the ATUS interview</p>	On file	On file	Changed
TUTIER1CODE	<p>Lexicon Tier 1: 1<sup>st</sup> and 2<sup>nd</sup> digits of 6-digit activity code</p> <p><b>2005:</b> valid value for "Traveling" changed from "17" to "18"</p>	On file	On file	Changed
TUTIER2CODE	<p>Lexicon Tier 2: 3<sup>rd</sup> and 4<sup>th</sup> digits of 6-digit activity code</p> <p><b>2005:</b> valid value for "Security procedures related to traveling" changed from "17" to "18"</p>	On file	On file	Changed
TUTIER3CODE	<p>Lexicon Tier 3: 4<sup>th</sup> and 5<sup>th</sup> digits of 6-digit activity code</p> <p><b>2004 and 2005:</b> some valid values were changed</p>	On file	Changed	Changed
<b>ATUS-CPS file</b>				
GEMETSTA	<p>Metropolitan/non-metropolitan status (1990 standards)</p> <p><b>Not comparable to GTMETSTA</b></p> <p><b>2004:</b> replaced by GTMETSTA</p> <p>Missing for HRYEAR4 &gt; 2004 or (HRMONTH ≥ 5 and HRYEAR4 = 2004),</p>	On file	Partially missing	Not on file

Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
GTMETSTA	Metropolitan/non-metropolitan status (2000 standards) <b>Not comparable to GEMETSTA</b> <b>2004:</b> replaced GEMETSTA Missing for HRYEAR4 < 2004 or (HRMONTH < 5 and HRYEAR4 = 2004)	Not on file	Partially missing	On file
HETENURE	Edited: are your quarters owned, rented, or occupied without payment of cash rent?	Not on file	Not on file	On file
HRHHID2	Household identifier part 2 <b>2004:</b> Replaced HRSAMPLE, HRSERSUF, and HUHHNUM Missing for HRYEAR4 < 2004 or (HRMONTH < 5 and HRYEAR4 = 2004)	Not on file	Partially missing	On file
HRSAMPLE	Sample ID <b>2004:</b> Replaced by HRHHID2 Missing for HRYEAR4 > 2004 or (HRMONTH ≥ 5 and HRYEAR4 = 2004)	On file	Partially missing	Not on file
HRSERSUF	Serial suffix (identifies extra units) <b>2004:</b> Replaced by HRHHID2 Missing for HRYEAR4 > 2004 or (HRMONTH ≥ 5 and HRYEAR4 = 2004)	On file	Partially missing	Not on file
HUFAMINC	Family income <b>2003 and 2004:</b> new values of 15 and 16 added May appear on records with HRYEAR4 > 2003 or (HRYEAR4 = 2003 and HRMONTH > 9)	New valid values added midyear	New valid values added midyear	On file
HUHHNUM	Household number <b>2004:</b> replaced by HRHHID2 Missing for HRYEAR4 > 2004 or (HRMONTH ≥ 5 and HRYEAR4 = 2004)	On file	Partially missing	Not on file
HXTENURE	HETENURE: allocation flag	Not on file	Not on file	On file
PEAFEVER	Edited: did you ever serve on active duty in the U.S. Armed Forces? <b>2005:</b> replaced PUAFEVER Missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing
PEAFWHEN	Edited: when did you serve in the Armed Forces? <b>2005:</b> replaced by PEAFWHN1 – PEAFWHN4 Missing for HRYEAR4 = 2005 and HRMONTH > 7	On file	On file	Partially missing
PEAFWHN1	Edited: when did you serve in the Armed Forces? (first period) <b>2005:</b> replaced PEAFWHEN Missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing
PEAFWHN2	Edited: when did you serve in the Armed Forces? (second period) <b>2005:</b> replaced PEAFWHEN Missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing
PEAFWHN3	Edited: when did you serve in the Armed Forces? (third period) <b>2005:</b> replaced PEAFWHEN Missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing



Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
PEAFWHN4	Edited: when did you serve in the Armed Forces? (fourth period) <b>2005:</b> replaced PEAFWHEN Missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing
PRTAGE	Age <b>2004:</b> topcode (maximum value) increased to 85 New topcode may appear on records with HRYEAR4 > 2004 or (HRYEAR4 = 2004 and HRMONTH ≥ 5)	On file	Changed	On file
PUAFEVER	Did you ever serve on active duty in the U.S. Armed Forces? <b>2005:</b> replaced by PEAFEVER Missing for HRYEAR4 = 2005 and HRMONTH > 7	On file	On file	Partially missing
PXAFEVER	PEAFEVER: allocation flag <b>2005:</b> missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing
PXAFWHEN	PEAFWHEN: allocation flag <b>2005:</b> missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	On file	On file	Partially missing
PXAFWHN1	PEAFWHN1: allocation flag <b>2005:</b> missing for HRYEAR4 < 2005 or (HRMONTH < 8 and HRYEAR4 = 2005)	Not on file	Not on file	Partially missing
PTDTRACE	Race <b>2003:</b> missing for household members of those selected to be interviewed for ATUS when HRYEAR4 = 2002	Partially missing	On file	On file
PXRACE1	PTDTRACE: allocation flag <b>2003:</b> missing for HRYEAR4 = 2002	Partially missing	On file	On file
TXNEWRACE	PTDTRACE: ATUS imputation flag <b>2003:</b> imputed only for those selected to be interviewed for ATUS when HRYEAR4 = 2002	On file	Not on file	Not on file
<b>Case History file</b>				
TR1INTST	Interview status 1 <b>2005:</b> replaced TUINTSTAT1	Not on file	Not on file	On file
TR2INTST	Interview status 2 <b>2005:</b> replaced TUINTSTAT2	Not on file	Not on file	On file
TRFNLOUT	Final outcome code <b>2005:</b> replaced TUFINALCODE	Not on file	Not on file	On file
TUAVGDUR	Average duration of reported activities <b>2003 and 2004:</b> defined only for complete interviews (TUFINALCODE = 001 or 002) <b>2005:</b> defined for complete interviews and for cases removed for data quality concerns (TRFNLOUT = 001.001, 002.001, 230.001, 231.001, 232.001, and 233.001)	On file	On file	Changed
TUFINALCODE	Final outcome code <b>2005:</b> replaced by TRFNLOUT	On file	On file	Not on file
TUINCENT	Incentive/non-incentive case	Not on file	Not on file	On file
TUINTRODATE	Day of month in which the case was introduced (panel day)	Not on file	Not on file	On file
TUINTROPANMONTH	Month in which the case was introduced (panel month)	Not on file	Not on file	On file
TUINTROPANYEAR	Year in which the case was introduced (panel year)	Not on file	Not on file	On file

Changes to Variables, 2003 – 2005				
Variable		2003	2004	2005
TUINTSTAT1	Interview status1 <b>2003:</b> TUFINALCODE = 19 is classified as TUINTSTAT1 = 2 (eligible non-interview) <b>2004:</b> TUFINALCODE = 19 is classified as TUINTSTAT1 = 3 (not eligible) <b>2005:</b> replaced by TR1INTST	On file	Changed	Not on file
TUINTSTAT2	Interview status 2 <b>2003:</b> TUFINALCODE = 19 is classified as TUINTSTAT2 = 5 (other) <b>2004:</b> TUFINALCODE = 19 is classified as TUINTSTAT2 = 6 (not eligible) <b>2005:</b> replaced by TR2INTST	On file	Changed	Not on file
TUTOTACTNO	Total number of activities reported <b>2003 and 2004:</b> defined only for complete interviews (TUFINALCODE = 001 or 002) <b>2005:</b> defined for complete interviews and for cases removed for data quality concerns (TRFNLOUT = 001.001, 002.001, 230.001, 231.001, 232.001, and 233.001)	On file	On file	Changed
<b>Call History file</b>				
TRFNLCLL	Final call outcome <b>2005:</b> replaced TUOUTCOMECODE	File not released	Not on file	On file
TUOUTCOMECODE	Call outcome code <b>2005:</b> replaced by TRFNLCLL	File not released	On file	Discontinued